APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,739	02/18/2004	Abhishek Chauhan	2006579-0556 (CTX-197)	1672

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EXAMINER
LANIER, BENJAMIN E

ART UNIT	PAPER NUMBER
2432	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/782,739	CHAUHAN ET AL.
Office Action Summary	Examiner	Art Unit	
	BENJAMIN E. LANIER	2432	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 June 2009</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,4-32 and 35-45</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,4-32 and 35-45</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>3/30/2009</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment filed 05 June 2009 amends claims 1, 7, 12, and 45. Claims 46

and 47 have been added. Applicant's amendment has been fully considered and entered.

Response to Arguments

2.   Applicant argues, "The combination of Xie and Chelsa does not teach or suggest

determining a frequency with which messages having an attribute were rejected by a rejection

rule based on the attribute…Chelsa's timing and frequency properties are only attributes of

Chelsa's arriving data packets that were not rejected by rejection rules" This argument is not

persuasive because Chelsa discloses measuring the frequency with which data packets having a

given parameter characteristic are blocked, and this measurement is compared against an

expected value to determine if the blocking parameter needs to be modified ([0032]).

3.   Applicant argues, "the combination of Xie and Chelsa also does not teach or suggest that

the same attribute of the message is used for both the rejection rule and the exception rule." This

argument is not persuasive because Chelsa discloses that the data packets are blocked based upon

a given parameter characteristic ([0032]).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

      1.   Determining the scope and contents of the prior art.
      2.   Ascertaining the differences between the prior art and the claims at issue.
      3.   Resolving the level of ordinary skill in the pertinent art.
      4.   Considering objective evidence present in the application indicating obviousness
         or nonobviousness.

6.   Claims 1, 4-6, 16-21, 31, 32, 35-37, 44-45 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Xie, U.S. Patent No. 6,772,347, in view of Chelsa, U.S. Publication No.

2004/0250124. Referring to claims 1, 17, 32, 45, Xie discloses a computer network firewall

wherein initially denied packets are additionally filtered dynamically (Col. 5, lines 45-50 &

Figure 6), which meets the limitation of receiving, by a security gateway, a first message,

rejecting, by a message filter of the security gateway, the first message based on a rejection rule,

determining, for the first message by a learning engine of the security gateway, an attribute that

triggered the rejection rule. The dynamic filter, filters the initially denied packets using an

additional set of rules, which are dynamically generated (Col. 5, lines 50-52), which meets the

limitation of generating, by the learning engine, an exception rule to the rejection rule which

rejected the messages with the attribute. The initially rejected packets, and later packets, can be

allowed based on the newly generated rules used by the dynamic filter (Col. 5, lines 63-66),

which meets the limitation of receiving, by the security gateway, a second message having the

attribute, and allowing, by an adaptive filter of the security gateway, the second message,

responsive to the exception rule. Xie does not disclose dynamically generated rules when it is

determined that packet denial is greater than a desired threshold amount. Chelsa discloses

maintaining a frequency for the number of occurances with which messages were rejected ([0017]), which meets the limitation of incrementing, by the learning engine for the attribute, a count of the number of messages rejected based on the attribute, based on the count for the attribute, determining, by the learning engine, a frequency with which messages having the attribute were rejected based on the rejection rule. It would have been obvious to one of ordinary skill in the art to dynamically generate exceptions for the dynamic filter of Xie based on a desired amount of allowable packets in order to minimize the blocking of legitimate traffic as taught be Chelsa ([0017]).

Referring to claims 4, 19, 35, Xie discloses that the dynamic filter generates rules using criteria such as port number and IP address, which are extracted from incoming packets (Col. 5, lines 52-55), which meets the limitations of the attribute is one of a message component, a value.

Referring to claims 5, 6, 20, 21, 36, 37, Xie discloses that the packets are initially denied based on counter rules that increment the count until a threshold is exceeded (Col. 5, lines 10-15), which meets the limitation of the frequency is a weighted/direct count of occurrences of the attribute.

Referring to claims 16, 31, 44, Xie discloses that the packets are initially denied based on counter rules that increment the count until a threshold is exceeded (Col. 5, lines 10-15). The dynamic filter, filters the initially denied packets using an additional set of rules, which are dynamically generated (Col. 5, lines 50-52). Xie does not disclose dynamically generated rules when it is determined that packet denial is greater than a desired threshold amount. It would have been obvious to one of ordinary skill in the art to dynamically generate exceptions for the

dynamic filter of Xie based on a desired amount of allowable packets in order to minimize the

blocking of legitimate traffic as taught be Chelsa ([0017]).

7.   Claims 7-15, 22-30, 38-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Xie, U.S. Patent No. 6,772,347, in view of Chelsa, U.S. Publication No. 2004/0250124, and

further in view of Balasubramanian, U.S. Publication No. 2005/0086206. Referring to claims 7,

8, 12, 13, 22, 26, 27, 30, 38, 39, 41, 42, Xie discloses filtering packets using rules based on port

number and IP address (Col. 5, lines 58-60). The rules can be stored in a memory (Col. 4, lines

5-8), which meets the limitation of a trie structure, wherein each node in the trie is associated

with a component. Xie does not specify filtering based on URLs and URL descendants.

Balasubramanian discloses a rule based filtering system where URL requests are filtered at the

domain and IP address level, based on rules, to allow/deny traffic for all domains beginning with

identified IP address information ([0056] & [0065]-[0067]), which meets the limitation of

maintaining, by the learning engine, a frequency for each instance of a URL component, wherein

the frequency is a function of a number of occurances with which a URL component and its

descendants were rejected by a rule, selecting, by the learning engine, a URL component

according to a set of constraints, and generating, by the learning engine, an exception rule for the

selected URL component and its descendants, the exception rule is generated by inferencing a

scalar data type of the descendants of the selected URL component. It would have been obvious

to one of ordinary skill in the art at the time the invention was made to dynamically filter the

packets of Xie using domain and IP address rules, as taught in Balasubramanian, in order to

control access to specific areas in web space as taught by Balasubramanian (0016]).

Referring to claims 9-11, 14, 15, 23-25, 28, 29, 40, 43, Xie discloses that the packets are initially

denied based on counter rules that increment the count until a threshold is exceeded (Col. 5, lines

10-15), which meets the limitation of constraints selected with a frequency exceeding a threshold

and having no children with a frequency above the threshold. Xie discloses filtering packets

using rules based on port number and IP address (Col. 5, lines 58-60), but does not specify

filtering based on URLs and URL descendants. Balasubramanian discloses a rule based filtering

system where URL requests are filtered at the domain and IP address level, based on rules, to

allow/deny traffic for all domains beginning with identified IP address information ([0056] &

[0065]-[0067]), which meets the limitation of the function is an aggregate of a number of

occurances with which the URL component was rejected by a rule and the number of

occurrences with which descendants of the URL component were rejected by the rule. It would

have been obvious to one of ordinary skill in the art at the time the invention was made to

dynamically filter the packets of Xie using domain and IP address rules, as taught in

Balasubramanian, in order to control access to specific areas in web space as taught by

Balasubramanian ([0016]).

Allowable Subject Matter

8.   Claims 46-47 are objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base claim

and any intervening claims.

9.   The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose or make obvious generating exception rules to rejection rules

respective to message comprising a cookie session identifier or messages that include a field

attribute indicating that one of the password field or the user login field exceeds a predetermined

number of characters. The exception rule is generated based upon a counter the measures the

number of received messages, which include the identifier or field attribute indicator, that have

been rejected based upon a rejection rule. If the counter exceeds a predetermined threshold in a

certain amount of time, the exception rule is generated such that future message including the

identifier or field attribute indicator will be allowed.

Conclusion

10.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to BENJAMIN E. LANIER whose telephone number is (571)272-

3805. The examiner can normally be reached on M-Th 7:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Benjamin E Lanier/
Primary Examiner, Art Unit 2432